Application Number: 09/574,519 Docket: 7164.01

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Marked-up Version Showing Changes."**

REMARKS

In accordance with the telephone call to Examiner J. Fredman on May 28, 2002, the Applicant wishes to add the term "squared" to the claims to further clarify the fact that "micron in area" refers to an area measurement. Examiner Fredman stated that he already interpreted the phrase to mean "micron squared" and that he would enter the language if filed as a 37 CFR 1.312 Amendment. Furthermore, and pursuant to a telephone message from Examiner Fredman on May 30, 2002, the Examiner wishes to cancel claim 66. Claims 66 is in condition for allowance but is drawn to a non-elected group. Claim 66 was inadvertently reintroduced into prosecution of the present application but is being pursued in a separate divisional application.

Entry of the amendment is therefore respectfully requested.

Respectfully submitted,

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Date: 6/4/02

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MARKED-UP VERSION SHOWING CHANGES.

56. (Fourth Amended) A molecular array for characterizing molecular interaction events, comprising:

(a) a substrate; and

(b) at least one discrete molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area and each domain includes a biologically or chemically based molecule deposited on the substrate at a pre-selected location.

76. (Twice Amended) An array for the identification of a target material comprising:

a substrate including a substantially flat surface; and

an at least one discrete deposition domain deposited on said surface, said deposition domain being smaller than one micron squared in total area and deposited at a pre-selected location on the surface, the deposition domain including a long chain biomolecular deposition material having the capacity to bind the target material.

83. (Twice Amended) An array of deposition domains for the detection of one or more pre-determined target materials comprising:

a solid glass substrate including a substantially flat surface; and

an at least one discrete domain deposited on the surface of the substrate, each domain being deposited at a known location and being smaller than one micron squared in area, each domain further including at least one type of molecule with a binding affinity for one or more of the target materials, at least two domains containing different biologically or chemically based molecules.

89. (Twice Amended) A molecular array for characterizing molecular interaction events, comprising:

(a) a substrate; and

(b) at least one molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area, each domain includes a

biologically or chemically based molecule directly deposited on the substrate at a pre-selected location, at least two domains containing different biologically or chemically based molecules.

91. (Twice Amended) A molecular array for characterizing molecular interaction events, comprising:

(a) a substrate; and

(b) at least one molecular deposition domain on said substrate wherein the spatial address of the domain is less than one micron squared in area, each domain includes a biologically or chemically based molecule directly deposited on the substrate at a pre-selected location, and wherein the molecular deposition domain interacts with a molecular deposition probe having at least one microsphere attached thereto.